

**ALLOCATING ACCESS ACROSS A SHARED COMMUNICATIONS MEDIUM
OF A DOCSIS 1.0 COMPLIANT CABLE NETWORK**

Cross-Reference to Related Application

5 This U.S. patent application claims priority under 35 U.S.C. 119 to the benefit of the filing date of U.S. provisional patent application serial no. 60/205,963, which was filed on May 19, 2000, and which is incorporated herein by reference. This application also incorporates herein by reference each of seven other U.S. patent applications to McKinnon et al. filed concurrently herewith in the U.S. Patent & Trademark Office and

10 respectively bearing serial numbers 09/____; 09/____; 09/____; 09/____; 09/800,155; 09/800,608; 09/800,674; 09/800,717; 09/800,735; 09/800,861; 09/800,981; 09/____; 09/____; and 09/____, each of which relates to allocating access across a

shared communications medium and is similarly titled.

Field of the Present Invention

15 The present invention generally relates to allocating access across a shared communications medium and, in particular, to allocating bandwidth used to convey data of competing users across a shared communications medium of a Carrier Network.

Background of the Present Invention

As used herein, a "Carrier Network" generally refers to a computer network through which users (such as homes and businesses) communicate with various service providers. The Carrier Network extends from the location of each user to an intermediate switched/routed network (hereinafter "Intermediate Network"). The service providers, in turn, are connected to the Intermediate Network, either directly or indirectly via the Internet, for communications with the users. The Carrier Network is maintained by a "Carrier," which also may serve as a service provider for certain services. For example, a Carrier or a related entity may serve as an Internet service provider (ISP).